Length, Weight and Coded Wire Tag Data for Juvenile Salmonids Sampled in the Campbell River Estuary and Discovery Passage, 1986

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LENGTH, WEIGHT AND CODED WIRE TAG DATA FOR JUVENILE SALMONIDS SAMPLED IN THE CAMPBELL RIVER ESTUARY AND DISCOVERY PASSAGE, 1986

by

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ABSTRACT

Kotyk, M. S., T. J. Brown, B. A. Kask, C. D. Levings, C. D. McAllister, and J. S. Macdonald. 1986. Length, weight and coded wire tag data for juvenile salmonids sampled in the Campbell River estuary and Discovery Passage, 1986. Can. Data Rep. Fish. Aquat. Sci. 630: 27 p.

Data are presented on lengths, weights and coded wire tags of marked and unmarked juvenile pink, chum, coho and chinook salmon along with steelhead trout sampled by beach seine in the Campbell River estuary and Discovery Passage in April to August 1986. Data are also provided on location, date, and time of capture.

RESUME

Kotyk, M. S., T. J. Brown, B. A. Kask, C. D. Levings, C. D. McAllister, and J. S. Macdonald. 1986. Length, weight and coded wire tag data for juvenile salmonids sampled in the Campbell River estuary and Discovery Passage, 1986. Can. Data Rep. Fish. Aquat. Sci. 630: 27 p.

Les auteurs présentent des données sur la longueur, le poids et les étiquettes métalliques codées de saumons rose, kéta, coho et quinnat juvéniles marqués et non marqués, ainsi que de truites arc-en-ciel anadromes, qui ont été capturés d'avril à août 1986 à l'aide de sennes de rivage dans l'estuaire de la rivière, Campbell et le passage Discovery. Ils fournissent aussi des données sur l'endroit, la date et le moment de la capture.

INTRODUCTION

In order to study the importance of estuarine habitats to juvenile salmonids, a beach seine sampling program was undertaken in the Campbell River estuary and Discovery Passage starting in March 1982. This report presents length, weight and coded wire tag data for marked and unmarked juvenile pink, chum, coho, and chinook salmon and steelhead trout sampled from April to August 1986.

SAMPLING PROCEDURES

Fish were caught using a 14.7 m beach seine with wings 4.9 m (1 cm stretched mesh), bunt 4.9 m (5 mm stretched mesh), and depth 3.0 m. The net was fitted with 15 m towing lines off the wings. Usually the net was pulled off the beach using a 5 m inflatable boat with a 60 hp outboard engine. The distance the net was taken offshore depended on local conditions such as currents, bottom topography, and floating obstacles (wharves, kelp beds) and therefore ranged from 5 to 15 m.

Catches were usually held in the bunt of the net while being subsampled. However, when numbers were too large for this to be feasible, they were held in floating cages (75 cm x 50 cm x 37 cm deep; 5 mm mesh size). Subsamples of the fish caught were fixed in 10% formalin. Fish were measured and weighed within 1 month of being captured; weighing was done on a Mettler PL 3000 balance.

SAMPLING LOCATIONS

Sampling was conducted at sites within the Campbell River estuary (Fig. 1), and Discovery Passage (Fig. 2). Descriptions of each of the sampling stations are presented in Brown et al. (in prep). All stations occupied, including those where juvenile salmonids were not captured, are shown.

DATA

Data for the marked chinook are presented on page 4 with the data for unmarked salmonids being presented as follows:

pink salmon (Oncorhynchus gorbuscha)..page 5-7
chum salmon (O. keta)..... page 7-12
coho salmon (O. kisutch)..... page 13
chinook salmon (O. tshawytscha)..... page 13-21
steelhead trout (Salmo gairdneri).... page 21

The numbers of fish measured were: 116 pink, 430 chum, 17 coho, 750 chinook salmon, and 1 steelhead trout.

The data in the table are as follows:

DATE - sampling date (year, month, day)
STN - sampling station number
TIME PST - sampling time (Pacific Standard Time)
CWT - coded wire tag (P. 4 only)
FISH NUMB - a code for identifying each fish sampled, consisting of the letter U or M and a 1 to 4 digit number (U = unmarked; M = marked)
L - fork length in mm
WT - wet weight (after damp drying with paper towelling) in g
SP - species code (1 = pink; 2 = chum; 3 = coho; 5 = chinook; 7 = steelhead)
Missing data are indicated as -1.

The unmarked fish sampled in this study include both wild and hatchery-reared salmonids. Further analysis may allow separation of wild and hatchery stocks by size discrimination.

ACKNOWLEDGMENTS

Thanks are due to C. Bateman, M. Flaherty, I. Kilde, and G. Pedersen who measured and weighed the fish.

REFERENCES

Brown, T.J., B.A. Kask, M.S. Kotyk, C.D. McAllister, C.D. Levings, and J.S. Macdonald. Salmonid catch-data from Campbell River and Discovery Passage, 1986. Can. Data Rep. Fish. Aquat. Sci. (in prep.)

DATE	STN	TIME PST		FISH NUMB	CWT	LEN MM	WT G	SP
860610	7	1300	M	660	02-36-45	98	10.6	5
860610	7	1300	M	661	02-36-45	92	8.8	5
860610	4	1320	M	674	02-36-45	94	8.7	5
860610	6	1615	M	717	02-36-45	96	10.3	5
860610	6	1615	M	719	02-36-45	106	14.2	5
860610	6	1615	M	720	02-36-45	96	10.8	5
860625	2	1437	M	783	02-36-55	102	11.5	5
860625	2	1437	M	785	02-35-25	103	11.5	5
860625	2	1437	M	787	02-35-54	103	11.2	5
860626	23	1205	M	798	02-36-45	81	5.5	5
860626	241	1345	M	822	02-35-23	113	14.7	5
860626	34	1625	M	858	02-35-22	117	12.8	5
860708	7	1225	M	911	02-35-54	97	9.3	5
860708	7	1225	M	912	02-35-25	97	9.6	5
860708	1	1315	M	930	02-35-54	98	10.0	5
860708	1	1315	M	931	02-35-22	100	11.2	5
860709	23	800	M	986	02-41-04	83	5.6	5
860709	23	800	M	987	02-40-41	86	5.9	5
860709	23	800	M	988	02-40-49	97	9.1	5
860709	23	800	M	993	02-36-57	93	7.1	5
860709	231	855	M	997	02-40-41	87	5.8	5
860709	231	855	M	999	02-40-30	83	5.3	5
860709	231	855	M	1001	02-41-04	88	6.8	5
860709	241	920	M	1002	02-40-42	79	3.9	5
860709	241	920	M	1003	02-35-24	110	9.3	5
860709	241	920	M	1006	02-35-23	117	15.3	5
860709	25	1020	M	1018	02-41-03	83	5.6	5
860709	25	1020	M	1021	no pin	109	12.5	5
860709	35	1335	M	1029	02-35-24	111	14.7	5
860709	34	1350	M	1038	tag lost	102	10.5	5
860723	24	1320	M	1081	02-37-26	90	6.7	5
860723	24	1320	M	1084	02-40-35	86	5.6	5
860723	24	1320	M	1085	02-40-49	103	9.7	5
860723	24	1320	M	1087	02-40-38	93	7.7	5
860723	24	1320	M	1088	02-41-03	80	5.4	5
860723	24	1320	M	1091	02-37-26	104	10.5	5
860723	24	1320	M	1096	02-37-45	96	7.7	5
860723	24	1320	M	1098	02-41-03	89	6.6	5
860723	24	1320	M	1099	02-41-02	85	6.4	5
860723	24	1345	M	1100	02-40-32	89	7.1	5
860723	24	1345	M	1101	02-37-26	80	4.8	5
860723	24	1345	M	1102	02-41-03	90	6.8	5
860723	24	1345	M	1103	02-40-32	88	5.6	5
860723	24	1345	M	1104	02-41-05	85	5.7	5
860723	24	1345	M	1105	02-37-42	103	10.0	5
860723	24	1345	M	1106	02-35-55	100	9.2	5
860723	24	1345	M	1107	02-40-18	111	11.8	5
860723	24	1345	M	1108	02-35-22	115	15.4	5
860723	24	1345	M	1109	02-40-30	97	7.6	5
860723	24	1345	M	1110	02-40-35	95	8.1	5
860723	34	1505	M	1123	02-35-23	105	11.2	5
860724	8	0830	M	1124	02-35-54	109	14.9	5
860806	20	1605	M	1146	02-41-03	90	8.7	5
800807	10	0995	M	1162	02-35-23	100	10.3	5

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860401	1	1525	U	7	31	.3	1
860401	1	1525	U	8	32	.4	1
860401	21	1655	U	19	33	-1	1
860401	21	1655	U	20	30	-1	1
860401	21	1655	U	21	31	-1	1
860401	21	1655	U	22	33	-1	1
860401	21	1655	U	23	30	-1	1
860401	21	1655	U	24	32	-1	1
860401	21	1655	U	25	32	-1	1
860401	21	1655	U	26	33	-1	1
860401	21	1655	U	27	33	-1	1
860401	21	1655	U	28	31	-1	1
860403	25	945	U	55	33	.1	1
860403	25	945	U	56	34	.3	1
860403	1	1030	U	58	32	.2	1
860403	1	1030	U	59	33	.2	1
860403	1	1030	U	60	33	.3	1
860403	1	1030	U	61	34	.4	1
860415	8	1520	U	76	35	.4	1
860415	8	1520	U	77	33	.3	1
860416	15	1310	U	96	34	.3	1
860416	15	1310	U	97	34	.3	1
860416	15	1310	U	98	34	.2	1

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860416	15	1310	U	99	35	.3	1
860416	15	1310	U	100	35	.4	1
860416	15	1310	U	101	33	.4	1
860416	15	1310	U	102	35	.3	1
860416	15	1310	U	103	33	.3	1
860416	15	1310	U	104	33	.2	1
860416	25	1605	U	116	34	.4	1
860416	25	1605	U	117	33	.2	1
860416	25	1605	U	118	33	.3	1
860416	25	1605	U	119	36	.4	1
860416	25	1605	U	120	40	.7	1
860416	25	1605	U	121	37	.4	1
860416	25	1605	U	122	34	.3	1
860416	25	1605	U	123	35	.2	1
860416	25	1605	U	124	37	.3	1
860416	25	1605	U	125	35	.3	1
860429	292	1550	U	195	40	.5	1
860429	292	1550	U	196	39	.5	1
860429	292	1550	U	197	42	.6	1
860429	292	1550	U	198	41	.6	1
860429	292	1550	U	199	40	.7	1
860429	292	1550	U	200	42	.6	1

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860429	292	1550	U	201	40	.6	1
860429	292	1550	U	202	42	.6	1
860429	292	1550	U	203	41	.6	1
860429	292	1550	U	204	37	.5	1
860429	292	1550	U	205	41	.7	1
860430	23	1130	U	228	37	.6	1
860430	23	1130	U	229	32	.2	1
860430	23	1130	U	230	37	.3	1
860430	23	1130	U	231	40	.5	1
860430	23	1130	U	232	33	.3	1
860430	23	1130	U	233	34	.5	1
860430	23	1130	U	234	33	.3	1
860430	23	1130	U	235	36	.5	1
860430	23	1130	U	236	35	.3	1
860430	11	1215	U	247	35	.4	1
860514	28	1410	U	395	38	.5	1
860514	28	1410	U	396	35	.4	1
860514	231	1645	U	408	36	.4	1
860514	231	1645	U	409	51	1.1	1
860514	231	1645	U	410	43	.6	1
860514	231	1645	U	411	44	.7	1
860514	231	1645	U	412	36	.4	1
860514	231	1645	U	413	42	.7	1
860514	231	1645	U	414	40	.4	1
860514	231	1645	U	415	42	.6	1
860514	231	1645	U	416	41	.6	1
860514	231	1645	U	417	36	.4	1
860527	21	1505	U	473	39	.5	1
860528	23	1005	U	584	68	2.9	1
860528	23	1005	U	585	73	3.4	1
860528	23	1005	U	586	69	3.0	1
860528	23	1005	U	587	64	2.3	1
860528	23	1005	U	588	66	2.2	1
860528	23	1005	U	589	62	2.2	1
860528	23	1005	U	590	68	2.5	1
860528	23	1005	U	591	74	3.7	1
860528	23	1005	U	592	81	5.2	1
860528	23	1005	U	593	73	3.8	1
860528	23	1005	U	594	52	1.5	1
860528	28	1400	U	604	51	1.5	1
860528	28	1400	U	605	57	1.0	1
860528	28	1400	U	606	49	.9	1
860528	28	1400	U	607	41	.7	1
860528	28	1400	U	608	41	.6	1
860528	28	1400	U	609	38	.5	1
860528	28	1400	U	610	36	.6	1
860528	28	1400	U	611	40	.6	1
860528	28	1400	U	612	38	.7	1
860528	28	1400	U	613	47	.9	1
860528	28	1400	U	614	38	.6	1
860528	28	1400	U	615	41	.7	1
860528	28	1400	U	616	38	.4	1
860528	28	1400	U	617	33	.4	1
860610	21	1430	U	679	56	1.4	1
860610	21	1430	U	680	49	1.0	1
860610	21	1430	U	681	54	1.3	1
860610	21	1430	U	682	59	1.7	1
860610	21	1430	U	683	62	1.3	1
860626	24	1500	U	842	82	4.5	1
860626	24	1500	U	843	70	2.9	1
860626	24	1500	U	844	69	2.6	1
860626	24	1500	U	845	73	3.3	1
860626	24	1500	U	846	81	5.0	1
860626	24	1500	U	847	73	3.1	1
860626	24	1500	U	848	87	5.7	1
860626	24	1500	U	849	85	5.3	1

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860625	24	1500	U	850	89	5.8	1
860626	24	1500	U	851	76	3.9	1
860626	24	1500	U	852	91	6.3	1
860626	24	1500	U	853	83	4.9	1
860401	51	1150	U	39	34	.3	1
860401	7	1400	U	1	36	.6	2
860401	1	1525	U	9	38	.6	2
860401	1	1525	U	10	34	.5	2
860401	1	1525	U	11	36	.6	2
860401	1	1525	U	12	36	.5	2
860401	1	1525	U	13	34	.5	2
860401	1	1525	U	14	41	.8	2
860401	1	1525	U	15	36	.5	2
860401	1	1525	U	16	32	.4	2
860401	1	1525	U	17	34	.5	2
860401	1	1525	U	18	36	.4	2
860401	21	1655	U	29	35	-1	2
860401	21	1655	U	30	39	-1	2
860401	21	1655	U	31	33	-1	2
860401	21	1655	U	32	35	-1	2
860401	21	1655	U	33	36	-1	2
860401	21	1655	U	34	39	-1	2
860401	21	1655	U	35	36	-1	2
860401	21	1655	U	36	35	-1	2
860401	21	1655	U	37	34	-1	2
860401	21	1655	U	38	38	-1	2
860403	25	945	U	54	45	.6	2
860403	1	1030	U	62	37	.6	2
860403	1	1030	U	63	35	.5	2
860403	1	1030	U	64	39	.6	2
860403	1	1030	U	65	38	.5	2
860403	1	1030	U	66	36	.4	2
860403	1	1030	U	67	33	.3	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860403	1	1030	U	68	34	.4	2
860403	1	1030	U	69	33	.4	2
860403	1	1030	U	70	32	.4	2
860403	1	1030	U	71	35	.4	2
860403	1	1030	U	72	29	.3	2
860415	7	1505	U	73	36	.4	2
860415	8	1520	U	78	38	.7	2
860415	8	1520	U	79	38	.5	2
860415	8	1520	U	80	38	.4	2
860415	8	1520	U	81	35	.5	2
860415	8	1520	U	82	38	.5	2
860415	8	1520	U	83	37	.5	2
860415	8	1520	U	84	37	.6	2
860415	8	1520	U	85	36	.5	2
860415	8	1520	U	86	34	.5	2
860415	8	1520	U	87	37	.5	2
860415	8	1520	U	88	36	.6	2
860416	17	1255	U	91	36	.5	2
860416	17	1255	U	92	34	.4	2
860416	17	1255	U	93	37	.5	2
860416	17	1255	U	94	36	.5	2
860416	17	1255	U	95	37	.6	2
860416	15	1310	U	106	35	.5	2
860416	15	1310	U	107	37	.6	2
860416	15	1310	U	108	37	.6	2
860416	15	1310	U	109	35	.4	2
860416	15	1310	U	110	36	.4	2
860416	15	1310	U	111	36	.4	2
860416	15	1310	U	112	35	.4	2
860416	15	1310	U	113	35	.5	2
860416	15	1310	U	114	36	.4	2
860416	15	1310	U	115	37	.5	2
860416	25	1605	U	126	42	.7	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860416	25	1605	U	127	38	.5	2
860416	25	1605	U	128	45	.9	2
860416	25	1605	U	129	38	.7	2
860416	25	1605	U	130	45	.9	2
860416	25	1605	U	131	40	.7	2
860416	25	1605	U	132	36	.4	2
860416	25	1605	U	133	37	.5	2
860416	25	1605	U	134	38	.7	2
860416	25	1605	U	135	60	2.2	2
860417	6	930	U	152	32	.3	2
860417	6	930	U	153	37	.4	2
860417	6	930	U	154	36	.4	2
860417	6	930	U	155	37	.3	2
860417	6	930	U	156	37	.5	2
860429	7	1335	U	158	40	.4	2
860429	7	1335	U	159	38	.5	2
860429	7	1335	U	160	37	.4	2
860429	7	1335	U	161	29	.5	2
860429	7	1335	U	162	37	.5	2
860429	7	1335	U	163	35	.4	2
860429	7	1335	U	164	34	.5	2
860429	7	1335	U	165	35	.4	2
860429	7	1335	U	166	36	.5	2
860429	8	1340	U	184	33	.3	2
860429	8	1340	U	185	38	.5	2
860429	8	1340	U	186	36	.5	2
860429	8	1340	U	187	38	.6	2
860429	8	1340	U	188	37	.4	2
860429	8	1340	U	189	39	.5	2
860429	8	1340	U	190	37	.4	2
860429	8	1340	U	191	39	.5	2
860429	8	1340	U	192	38	.5	2
860429	8	1340	U	193	38	.5	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860429	292	1550	U	206	48	.9	2
860429	292	1550	U	207	35	.4	2
860429	292	1550	U	208	40	.6	2
860429	292	1550	U	209	37	.4	2
860429	292	1550	U	210	44	.8	2
860429	292	1550	U	211	38	.4	2
860429	292	1550	U	212	58	1.9	2
860429	292	1550	U	213	43	.7	2
860430	23	1130	U	237	43	.7	2
860430	23	1130	U	238	34	.3	2
860430	23	1130	U	239	36	.4	2
860430	23	1130	U	240	37	.5	2
860430	23	1130	U	241	34	.4	2
860430	23	1130	U	242	40	.5	2
860430	23	1130	U	243	37	.5	2
860430	23	1130	U	244	37	.5	2
860430	23	1130	U	245	36	.4	2
860430	23	1130	U	246	36	.3	2
860430	11	1215	U	248	38	.5	2
860430	141	1220	U	254	36	.5	2
860430	151	1225	U	255	35	.3	2
860430	151	1225	U	256	38	.5	2
860430	151	1225	U	257	33	.3	2
860430	14	1230	U	264	36	.5	2
860430	14	1230	U	265	34	.4	2
860430	14	1230	U	266	39	.6	2
860430	14	1230	U	267	35	.4	2
860430	14	1230	U	268	36	.5	2
860430	14	1230	U	269	37	.6	2
860430	14	1230	U	270	36	.5	2
860430	14	1230	U	271	38	.5	2
860430	14	1230	U	272	37	.5	2
860430	14	1230	U	273	37	.5	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860430	7	1520	U	274	38	.3	2
860430	7	1520	U	275	38	.4	2
860430	7	1520	U	276	37	.3	2
860430	7	1520	U	277	37	.4	2
860430	7	1520	U	278	38	.5	2
860430	10	1535	U	291	33	.3	2
860430	10	1535	U	292	36	.4	2
860430	10	1535	U	293	36	.5	2
860501	47	800	U	296	38	.5	2
860501	47	800	U	297	49	1.2	2
860501	47	800	U	298	36	.5	2
860501	47	800	U	299	36	.4	2
860501	47	800	U	300	34	.4	2
860501	47	800	U	301	35	.5	2
860501	47	800	U	302	36	.5	2
860501	47	800	U	303	38	.6	2
860501	47	800	U	304	35	.5	2
860501	47	800	U	305	35	.4	2
860501	47	800	U	306	36	.5	2
860514	47	0730	U	316	38	.4	2
860514	47	0730	U	317	41	.6	2
860514	47	0730	U	318	35	.4	2
860514	47	0730	U	319	38	.6	2
860514	47	0730	U	320	36	.5	2
860514	47	0730	U	321	33	.5	2
860514	47	0730	U	322	37	.6	2
860514	47	0730	U	323	36	.4	2
860514	47	0730	U	324	37	.4	2
860514	47	0730	U	325	37	.5	2
860514	8	0815	U	337	37	.4	2
860514	8	0815	U	338	37	.5	2
860514	8	0815	U	339	37	.4	2
860514	8	0815	U	340	37	.4	2
860514	8	0815	U	341	36	.4	2
860514	8	0815	U	342	37	.4	2
860514	8	0815	U	343	36	.4	2
860514	8	0815	U	344	36	.4	2
860514	6	0835	U	355	36	.5	2
860514	6	0835	U	356	34	.4	2
860514	6	0835	U	357	36	.4	2
860514	6	0835	U	358	36	.5	2
860514	6	0835	U	359	37	.5	2
860514	6	0835	U	360	37	.5	2
860514	6	0835	U	361	31	.3	2
860514	6	0835	U	362	36	.4	2
860514	6	0835	U	363	35	.5	2
860514	6	0835	U	364	35	.4	2
860514	6	0835	U	365	37	.5	2
860514	6	0835	U	366	39	.6	2
860514	6	0835	U	367	38	.6	2
860514	6	0835	U	368	33	.3	2
860514	151	0915	U	375	37	.5	2
860514	151	0915	U	376	36	.4	2
860514	151	0915	U	377	34	.4	2
860514	151	0915	U	378	35	.3	2
860514	151	0915	U	379	37	.5	2
860514	151	0915	U	380	36	.5	2
860514	151	0915	U	381	37	.5	2
860514	151	0915	U	382	33	.3	2
860514	151	0915	U	383	34	.4	2
860514	151	0915	U	384	31	.4	2
860514	151	0915	U	385	36	.4	2
860514	28	1410	U	397	41	.6	2
860514	28	1410	U	398	31	.3	2
860514	28	1410	U	399	35	.4	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860514	28	1410	U	401	40	.7	2
860514	28	1410	U	402	36	.4	2
860514	28	1410	U	403	36	.4	2
860514	28	1410	U	404	35	.3	2
860514	28	1410	U	405	34	.3	2
860514	28	1410	U	406	36	.4	2
860514	231	1645	U	418	36	.3	2
860514	231	1645	U	419	36	.3	2
860514	231	1645	U	420	40	.6	2
860514	231	1645	U	421	39	.6	2
860514	231	1645	U	422	41	.6	2
860514	231	1645	U	423	35	.3	2
860514	231	1645	U	424	36	.3	2
860514	231	1645	U	425	38	.5	2
860514	231	1645	U	426	36	.4	2
860515	7	0900	U	427	40	.4	2
860527	8	1305	U	450	39	.5	2
860527	8	1305	U	451	37	.4	2
860527	8	1305	U	452	39	.4	2
860527	8	1305	U	453	35	.3	2
860527	8	1305	U	454	34	.3	2
860527	8	1305	U	455	38	.5	2
860527	8	1305	U	456	33	.3	2
860527	8	1305	U	457	37	.4	2
860527	8	1305	U	458	36	.4	2
860527	8	1305	U	459	33	.3	2
860527	151	1330	U	470	34	.3	2
860527	151	1330	U	471	35	.4	2
860527	151	1330	U	472	36	.5	2
860527	21	1505	U	474	42	.6	2
860527	21	1505	U	475	42	.6	2
860527	21	1505	U	476	39	.5	2
860527	21	1505	U	477	43	.7	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860527	21	1505	U	478	40	.6	2
860527	21	1505	U	479	41	.6	2
860527	21	1505	U	480	43	.8	2
860527	21	1505	U	481	51	1.3	2
860527	21	1505	U	482	46	1.0	2
860527	21	1505	U	483	40	.6	2
860527	21	1505	U	484	33	.3	2
860527	21	1505	U	485	36	.4	2
860527	21	1505	U	486	39	.6	2
860527	21	1505	U	487	40	.6	2
860527	4	1730	U	517	32	.3	2
860527	4	1730	U	528	38	.5	2
860527	4	1730	U	529	37	.4	2
860527	4	1730	U	530	35	.4	2
860527	4	1730	U	531	35	.4	2
860527	4	1730	U	532	36	.4	2
860527	4	1730	U	533	36	.5	2
860527	4	1730	U	534	33	.3	2
860527	4	1730	U	535	35	.4	2
860527	4	1730	U	536	36	.4	2
860527	4	1730	U	537	35	.4	2
860528	6	815	U	565	38	.6	2
860528	6	815	U	566	38	.5	2
860528	6	815	U	567	38	.6	2
860528	6	815	U	568	36	.5	2
860528	6	815	U	569	38	.6	2
860528	6	815	U	570	38	.6	2
860528	6	815	U	571	36	.5	2
860528	6	815	U	572	37	.4	2
860528	6	815	U	573	38	.5	2
860528	6	815	U	574	36	.4	2
860528	6	815	U	575	73	3.7	2
860528	6	815	U	576	53	1.3	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860528	23	1005	U	577	53	1.3	2
860528	23	1005	U	578	66	2.4	2
860528	23	1005	U	579	69	3.2	2
860528	23	1005	U	580	57	1.7	2
860528	23	1005	U	581	67	2.9	2
860528	23	1005	U	582	64	2.5	2
860528	23	1005	U	583	67	2.8	2
860528	28	1400	U	618	40	.7	2
860528	28	1400	U	619	46	1.1	2
860528	28	1400	U	620	45	1.0	2
860528	28	1400	U	621	46	1.0	2
860528	28	1400	U	622	45	.9	2
860528	28	1400	U	623	45	.9	2
860528	28	1400	U	624	41	.7	2
860528	28	1400	U	625	45	1.0	2
860528	28	1400	U	626	40	.6	2
860528	28	1400	U	627	51	1.4	2
860528	28	1400	U	628	40	.6	2
860528	28	1400	U	629	37	.4	2
860528	28	1400	U	630	40	.6	2
860528	20	1430	U	644	40	.6	2
860528	20	1430	U	645	33	.3	2
860528	20	1430	U	646	38	.5	2
860528	20	1430	U	647	32	.2	2
860528	20	1430	U	648	41	.7	2
860528	20	1430	U	649	35	.4	2
860528	20	1430	U	650	38	.5	2
860528	20	1430	U	651	36	.5	2
860610	4	1320	U	663	60	2.1	2
860610	21	1430	U	675	99	9.1	2
860610	21	1430	U	684	59	1.8	2
860610	21	1430	U	685	40	.5	2
860610	21	1430	U	686	56	1.4	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860610	20	1510	U	699	50	1.2	2
860610	20	1510	U	700	42	.6	2
860610	20	1510	U	701	53	1.2	2
860610	20	1510	U	702	49	.9	2
860610	20	1510	U	703	48	1.0	2
860610	20	1510	U	704	46	.7	2
860625	21	1543	U	791	61	1.8	2
860625	21	1543	U	792	55	1.2	2
860626	231	1307	U	802	74	3.0	2
860626	231	1307	U	803	71	2.7	2
860626	231	1307	U	804	69	2.8	2
860626	231	1307	U	805	59	1.4	2
860626	231	1307	U	806	73	2.9	2
860626	231	1307	U	807	73	3.1	2
860626	231	1307	U	808	75	3.4	2
860626	231	1307	U	809	75	3.5	2
860626	231	1307	U	810	75	3.2	2
860626	231	1307	U	811	73	2.7	2
860626	231	1307	U	812	67	2.4	2
860626	231	1307	U	813	75	3.2	2
860626	231	1307	U	814	57	1.3	2
860626	231	1307	U	815	69	2.4	2
860626	231	1307	U	816	66	2.2	2
860626	231	1307	U	817	76	3.1	2
860626	231	1307	U	818	58	1.5	2
860626	231	1307	U	819	71	2.7	2
860626	231	1307	U	820	67	2.4	2
860626	231	1307	U	821	69	2.5	2
860626	24	1500	U	833	65	2.4	2
860626	24	1500	U	834	79	4.1	2
860626	24	1500	U	835	74	3.7	2
860626	24	1500	U	836	86	4.3	2
860626	24	1500	U	837	93	7.3	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860626	24	1500	U	838	80	4.3	2
860626	24	1500	U	839	89	5.4	2
860626	24	1500	U	840	101	9.2	2
860626	24	1500	U	841	93	6.1	2
860708	292	1340	U	945	112	12.7	2
860709	25	1020	U	1016	74	3.5	2
860709	25	1020	U	1017	98	8.3	2
860723	20	0925	U	1051	65	2.4	2
860723	20	0925	U	1052	81	4.4	2
860723	20	0925	U	1053	75	3.9	2
860723	20	0925	U	1054	78	4.3	2
860723	20	0925	U	1055	76	4.3	2
860723	20	0925	U	1056	75	3.7	2
860723	20	0925	U	1057	74	3.8	2
860723	20	0925	U	1058	73	3.2	2
860723	24	1320	U	1071	93	5.9	2
860723	24	1320	U	1072	85	5.0	2
860723	24	1320	U	1073	77	4.0	2
860723	24	1320	U	1074	86	5.6	2
860723	24	1320	U	1075	73	3.0	2
860723	24	1320	U	1076	83	5.3	2
860723	24	1320	U	1077	77	4.3	2
860723	24	1320	U	1078	82	4.7	2
860723	34	1505	U	1111	92	6.5	2
860723	34	1505	U	1112	73	3.2	2
860402	151	1150	U	40	37	.4	2
860402	151	1150	U	41	38	.5	2
860402	151	1150	U	42	37	.4	2
860402	151	1150	U	43	38	.5	2
860402	151	1150	U	44	39	.5	2
860402	151	1150	U	45	35	.4	2
860402	151	1150	U	46	39	.5	2
860402	151	1150	U	47	38	.5	2

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860402	151	1150	U	48	33	.8	2
860402	151	1150	U	49	38	.4	2
860402	151	1150	U	50	33	.2	2
860402	151	1150	U	51	38	.4	2
860401	7	1400	U	2	34	.5	3
860416	34	1805	U	139	130	24.7	3
860417	6	930	U	142	138	25.6	3
860417	6	930	U	143	150	34.3	3
860417	6	930	U	144	130	22.9	3
860417	6	930	U	145	122	17.0	3
860417	6	930	U	146	137	24.1	3
860417	6	930	U	147	129	22.1	3
860417	6	930	U	148	133	20.8	3
860417	6	930	U	149	137	25.0	3
860417	6	930	U	150	135	23.2	3
860417	6	930	U	151	130	20.2	3
860429	7	1335	U	157	140	28.5	3
860429	8	1340	U	171	122	21.2	3
860429	8	1340	U	172	131	25.5	3
860429	8	1340	U	194	34	.5	3
860430	25	1010	U	224	88	7.3	3
860430	25	1010	U	225	79	5.9	3
860430	7	1520	U	288	126	25.4	3
860430	7	1520	U	289	133	28.0	3
860514	28	1410	U	407	110	14.1	3
860515	7	0900	U	428	90	9.6	3
860528	241	1155	U	595	107	14.2	3
860528	241	1155	U	596	100	11.7	3
860528	241	1155	U	597	82	6.7	3
860528	241	1155	U	598	94	9.8	3
860528	241	1155	U	599	80	5.6	3
860528	241	1155	U	600	85	6.0	3
860528	241	1155	U	601	77	4.6	3

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860528	241	1155	U	602	81	6.4	3
860528	241	1155	U	603	94	8.9	3
860610	4	1320	U	664	51	1.1	3
860610	4	1320	U	665	51	1.3	3
860610	4	1320	U	666	61	2.8	3
860610	4	1320	U	667	49	1.2	3
860610	4	1320	U	668	61	2.6	3
860610	34	1530	U	715	125	17.1	3
860611	292	1345	U	748	134	20.5	3
860626	34	1645	U	869	144	30.0	3
860626	34	1645	U	870	128	20.4	3
860626	34	1645	U	871	141	26.6	3
860626	34	1645	U	872	135	25.2	3
860626	34	1645	U	873	153	36.6	3
860724	7	1025	U	1130	67	3.5	3
860806	7	1630	U	1160	146	36.3	3
860806	7	1630	U	1161	150	55.2	3
860401	7	1400	U	3	44	1.2	5
860401	7	1400	U	4	37	.7	5
860401	7	1400	U	5	29	.2	5
860401	2	1500	U	6	167	62.2	5
860402	34	1446	U	52	172	63.1	5
860402	34	1446	U	53	166	63.5	5
860403	25	945	U	57	51	1.2	5
860415	7	1505	U	74	39	.7	5
860415	7	1505	U	75	125	27.4	5
860415	8	1520	U	89	38	.8	5
860415	8	1520	U	90	170	62.5	5
860416	15	1310	U	105	27	.2	5
860416	25	1605	U	136	50	1.4	5
860416	25	1605	U	137	50	1.2	5
860416	25	1605	U	138	52	1.4	5

DATE	STN	TIME PST		FISH NUMB	LEN MM	WT G	SP
860417	6	930	U	141	151	35.4	5
860429	7	1335	U	167	40	.8	5
860429	7	1335	U	168	38	.6	5
860429	7	1335	U	169	39	.8	5
860429	7	1335	U	170	37	.7	5
860429	8	1340	U	173	137	32.7	5
860429	8	1340	U	174	43	.9	5
860429	8	1340	U	175	43	.9	5
860429	8	1340	U	176	39	.7	5
860429	8	1340	U	177	39	.6	5
860429	8	1340	U	178	42	.8	5
860429	8	1340	U	179	41	.7	5
860429	8	1340	U	180	38	.6	5
860429	8	1340	U	181	45	1.1	5
860429	8	1340	U	182	43	.8	5
860429	8	1340	U	183	41	.8	5
860430	25	1010	U	214	53	1.4	5
860430	25	1010	U	215	60	2.1	5
860430	25	1010	U	216	53	1.7	5
860430	25	1010	U	217	56	1.8	5
860430	25	1010	U	218	62	2.5	5
860430	25	1010	U	219	67	2.4	5
860430	25	1010	U	220	57	2.1	5
860430	25	1010	U	221	62	2.8	5
860430	25	1010	U	222	58	2.1	5
860430	25	1010	U	223	60	2.4	5
860430	23	1130	U	226	44	1.1	5
860430	23	1130	U	227	34	.5	5
860430	11	1215	U	249	39	.7	5
860430	11	1215	U	250	38	.6	5
860430	11	1215	U	251	39	.6	5
860430	141	1220	U	252	42	.7	5
860430	141	1220	U	253	37	.6	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860430	151	1225	U 258	39	.7	5
860430	151	1225	U 259	39	.7	5
860430	151	1225	U 260	41	.8	5
860430	151	1225	U 261	38	.6	5
860430	151	1225	U 262	44	1.1	5
860430	14	1230	U 263	40	.6	5
860430	7	1520	U 279	40	.7	5
860430	7	1520	U 280	43	.9	5
860430	7	1520	U 281	43	.8	5
860430	7	1520	U 282	44	1.0	5
860430	7	1520	U 283	40	.6	5
860430	7	1520	U 284	44	.8	5
860430	7	1520	U 285	44	.9	5
860430	7	1520	U 286	40	.7	5
860430	7	1520	U 287	101	11.6	5
860430	7	1520	U 290	37	.6	5
860430	10	1535	U 294	147	41.5	5
860430	10	1535	U 295	197	108.9	5
860501	47	800	U 307	41	.8	5
860501	47	800	U 308	42	.9	5
860501	47	800	U 309	43	1.1	5
860501	47	800	U 310	42	1.0	5
860501	47	800	U 311	41	.8	5
860501	47	800	U 312	41	.8	5
860501	47	800	U 313	39	.7	5
860501	47	800	U 314	40	.8	5
860501	47	800	U 315	41	1.0	5
860514	47	0730	U 326	45	1.1	5
860514	47	0730	U 327	41	.8	5
860514	47	0730	U 328	41	.9	5
860514	47	0730	U 329	42	.9	5
860514	47	0730	U 330	40	.8	5
860514	47	0730	U 331	41	.8	5
860514	47	0730	U 332	39	.7	5
860514	47	0730	U 333	42	1.0	5
860514	47	0730	U 334	41	1.0	5
860514	47	0730	U 335	41	.8	5
860514	47	0730	U 336	39	.7	5
860514	8	0815	U 345	40	.7	5
860514	8	0815	U 346	39	.6	5
860514	8	0815	U 347	41	.9	5
860514	8	0815	U 348	41	.9	5
860514	8	0815	U 349	42	.9	5
860514	8	0815	U 350	44	1.0	5
860514	8	0815	U 351	38	.7	5
860514	8	0815	U 352	43	.9	5
860514	8	0815	U 353	43	.9	5
860514	8	0815	U 354	40	.7	5
860514	6	0835	U 369	40	.7	5
860514	6	0835	U 370	41	.8	5
860514	6	0835	U 371	45	1.1	5
860514	6	0835	U 372	41	.8	5
860514	6	0835	U 373	43	.9	5
860514	6	0835	U 374	42	.9	5
860514	151	0915	U 386	42	.9	5
860514	151	0915	U 387	43	1.0	5
860514	151	0915	U 388	44	.8	5
860514	151	0915	U 389	41	.7	5
860514	151	0915	U 390	39	.6	5
860514	151	0915	U 391	40	.7	5
860514	151	0915	U 392	41	.8	5
860514	151	0915	U 393	41	.8	5
860514	151	0915	U 394	42	.9	5
860515	34	1045	U 429	165	51.5	5
860527	47	1220	U 430	85	6.8	5
860527	47	1220	U 431	46	1.2	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860527	47	1220	U 432	42	.9	5
860527	47	1220	U 433	43	.8	5
860527	47	1220	U 434	47	1.4	5
860527	47	1220	U 435	41	.8	5
860527	47	1220	U 436	40	.8	5
860527	47	1220	U 437	39	.7	5
860527	47	1220	U 438	41	.9	5
860527	47	1220	U 439	38	.6	5
860527	47	1220	U 440	44	1.1	5
860527	8	1305	U 441	39	.6	5
860527	8	1305	U 442	41	.8	5
860527	8	1305	U 443	40	.6	5
860527	8	1305	U 444	41	.7	5
860527	8	1305	U 445	39	.8	5
860527	8	1305	U 446	42	.8	5
860527	8	1305	U 447	39	.7	5
860527	8	1305	U 448	37	.4	5
860527	8	1305	U 449	38	.5	5
860527	151	1330	U 460	38	.6	5
860527	151	1330	U 461	48	1.4	5
860527	151	1330	U 462	39	.7	5
860527	151	1330	U 463	40	.6	5
860527	151	1330	U 464	41	.7	5
860527	151	1330	U 465	39	.7	5
860527	151	1330	U 466	48	1.4	5
860527	151	1330	U 467	41	.8	5
860527	151	1330	U 468	38	.6	5
860527	151	1330	U 469	38	.7	5
860527	21	1505	U 488	43	.9	5
860527	21	1505	U 489	45	.8	5
860527	21	1505	U 490	44	.8	5
860527	21	1505	U 491	53	1.6	5
860527	21	1505	U 492	41	.6	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860527	21	1505	U 493	45	.8	5
860527	21	1505	U 494	41	.5	5
860527	21	1505	U 495	46	.9	5
860527	21	1505	U 496	47	.9	5
860527	34	1630	U 497	43	.8	5
860527	34	1630	U 498	39	.6	5
860527	34	1630	U 499	40	.8	5
860527	34	1630	U 500	46	1.0	5
860527	34	1630	U 501	41	.8	5
860527	34	1630	U 502	39	.6	5
860527	34	1630	U 503	39	.7	5
860527	34	1630	U 504	39	.6	5
860527	34	1630	U 505	39	.7	5
860527	34	1630	U 506	40	.7	5
860527	34	1630	U 507	43	.9	5
860527	34	1630	U 508	45	1.1	5
860527	34	1630	U 509	40	.8	5
860527	34	1630	U 510	43	.8	5
860527	34	1630	U 511	41	.7	5
860527	34	1630	U 512	39	.7	5
860527	34	1630	U 513	41	.7	5
860527	34	1630	U 514	38	.6	5
860527	34	1630	U 515	40	.7	5
860527	34	1630	U 516	41	.8	5
860527	4	1730	U 518	43	.9	5
860527	4	1730	U 519	41	.7	5
860527	4	1730	U 520	43	.8	5
860527	4	1730	U 521	42	.8	5
860527	4	1730	U 522	44	.9	5
860527	4	1730	U 523	42	.8	5
860527	4	1730	U 524	38	.5	5
860527	4	1730	U 525	39	.6	5
860527	4	1730	U 526	40	.6	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860527	4	1730	U 527	40	.7	5
860528	6	815	U 538	40	.7	5
860528	6	815	U 539	45	1.0	5
860528	6	815	U 540	45	1.0	5
860528	6	815	U 541	43	.7	5
860528	6	815	U 542	40	.9	5
860528	6	815	U 543	45	1.1	5
860528	6	815	U 544	43	.9	5
860528	6	815	U 545	41	.7	5
860528	6	815	U 546	39	.6	5
860528	6	815	U 547	44	1.0	5
860528	6	815	U 548	43	.8	5
860528	6	815	U 549	38	.6	5
860528	6	815	U 550	40	.8	5
860528	6	815	U 551	42	.9	5
860528	6	815	U 552	42	.9	5
860528	6	815	U 553	39	.7	5
860528	6	815	U 554	39	.7	5
860528	6	815	U 555	42	.8	5
860528	6	815	U 556	39	.6	5
860528	6	815	U 557	41	.8	5
860528	6	815	U 558	39	.7	5
860528	6	815	U 559	45	1.1	5
860528	6	815	U 560	43	.9	5
860528	6	815	U 561	40	.6	5
860528	6	815	U 562	43	.8	5
860528	6	815	U 563	42	.9	5
860528	6	815	U 564	40	.8	5
860528	20	1430	U 631	41	.6	5
860528	20	1430	U 632	43	.7	5
860528	20	1430	U 633	39	.5	5
860528	20	1430	U 634	39	.5	5
860528	20	1430	U 635	39	.5	5
860528	20	1430	U 636	45	.9	5
860528	20	1430	U 637	38	.5	5
860528	20	1430	U 638	38	.6	5
860528	20	1430	U 639	43	.7	5
860528	20	1430	U 640	40	.5	5
860528	20	1430	U 641	39	.5	5
860528	20	1430	U 642	37	.5	5
860528	20	1430	U 643	42	.7	5
860610	7	1300	U 652	51	1.4	5
860610	7	1300	U 653	48	1.2	5
860610	7	1300	U 654	45	1.1	5
860610	7	1300	U 655	43	.9	5
860610	7	1300	U 656	49	1.1	5
860610	7	1300	U 657	99	11.1	5
860610	7	1300	U 658	93	9.1	5
860610	7	1300	U 659	99	11.3	5
860610	7	1300	U 662	91	8.1	5
860610	4	1320	U 669	65	3.4	5
860610	4	1320	U 670	96	9.5	5
860610	4	1320	U 671	99	10.1	5
860610	4	1320	U 672	97	9.3	5
860610	4	1320	U 673	85	6.7	5
860610	21	1430	U 676	100	11.5	5
860610	21	1430	U 677	94	8.9	5
860610	21	1430	U 678	93	8.5	5
860610	21	1430	U 687	50	1.2	5
860610	21	1430	U 688	45	.8	5
860610	21	1430	U 689	49	1.1	5
860610	21	1430	U 690	49	1.2	5
860610	21	1430	U 691	52	1.3	5
860610	21	1430	U 692	44	.8	5
860610	21	1430	U 693	46	1.1	5
860610	21	1430	U 694	44	.9	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860610	21	1430	U 695	57	1.0	5
860610	21	1430	U 696	44	.6	5
860610	20	1510	U 697	51	1.2	5
860610	20	1510	U 698	48	.9	5
860610	34	1530	U 705	51	1.3	5
860610	34	1530	U 706	46	.6	5
860610	34	1530	U 707	42	.6	5
860610	34	1530	U 708	41	.7	5
860610	34	1530	U 709	42	.5	5
860610	34	1530	U 710	90	6.6	5
860610	34	1530	U 711	93	7.3	5
860610	34	1530	U 712	74	3.2	5
860610	34	1530	U 713	95	8.2	5
860610	34	1530	U 714	92	5.9	5
860610	6	1615	U 716	105	12.7	5
860610	6	1615	U 718	91	9.4	5
860610	6	1615	U 721	83	5.9	5
860610	6	1615	U 722	49	1.4	5
860610	6	1615	U 723	44	1.2	5
860610	6	1615	U 724	43	.9	5
860610	6	1615	U 725	56	2.0	5
860610	6	1615	U 726	53	1.9	5
860611	47	720	U 727	57	1.8	5
860611	47	720	U 728	38	.5	5
860611	47	720	U 729	41	.6	5
860611	47	720	U 730	40	.6	5
860611	47	720	U 731	42	.7	5
860611	47	720	U 732	41	.6	5
860611	231	940	U 733	46	.9	5
860611	231	940	U 734	46	.9	5
860611	231	940	U 735	45	.8	5
860611	231	940	U 736	48	1.3	5
860611	231	940	U 737	68	3.1	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860611	231	940	U 738	77	4.3	5
860611	231	940	U 739	92	8.1	5
860611	231	940	U 740	99	10.0	5
860611	231	940	U 741	94	8.7	5
860611	231	940	U 742	94	9.4	5
860611	292	1345	U 743	45	.8	5
860611	292	1345	U 744	49	1.2	5
860611	292	1345	U 745	48	.9	5
360611	292	1345	U 746	58	2.0	5
860611	292	1345	U 747	55	1.6	5
860611	17	1630	U 749	48	1.1	5
860611	17	1630	U 750	49	1.4	5
860611	17	1630	U 751	45	1.0	5
860611	17	1630	U 752	43	1.5	5
860611	17	1630	U 753	43	1.5	5
860611	16	1635	U 754	50	1.1	5
860611	16	1635	U 755	49	1.1	5
860611	16	1635	U 756	42	.8	5
860611	16	1635	U 757	49	1.2	5
860611	16	1635	U 758	47	1.1	5
860611	18	1705	U 759	49	1.3	5
860611	18	1705	U 760	54	1.8	5
860611	18	1705	U 761	48	1.6	5
860611	18	1705	U 762	51	1.7	5
860611	18	1705	U 763	39	.7	5
860611	11	1715	U 764	44	1.1	5
860611	11	1715	U 765	50	1.5	5
860611	11	1715	U 766	47	1.4	5
860611	11	1715	U 767	50	1.5	5
860611	11	1715	U 768	43	.9	5
860611	11	1715	U 769	60	3.0	5
860611	11	1715	U 770	97	10.1	5
860611	11	1715	U 771	100	11.5	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860611	11	1715	U 772	92	9.8	5
860611	11	1715	U 773	100	11.8	5
860611	11	1715	U 774	90	8.6	5
860611	111	1730	U 775	45	1.0	5
860611	111	1730	U 776	47	1.3	5
860611	111	1730	U 777	45	1.2	5
860611	111	1730	U 778	48	1.5	5
860611	111	1730	U 779	46	1.2	5
860625	2	1437	U 780	100	12.8	5
860625	2	1437	U 781	101	10.3	5
860625	2	1437	U 782	92	8.9	5
860625	2	1437	U 784	92	8.1	5
860625	2	1437	U 786	99	10.4	5
860625	2	1437	U 788	101	11.2	5
860625	2	1437	U 789	101	10.2	5
860625	21	1543	U 790	98	8.3	5
860626	23	1205	U 793	114	13.3	5
860626	23	1205	U 794	103	11.0	5
860626	23	1205	U 795	94	8.5	5
860626	23	1205	U 796	104	11.1	5
860626	23	1205	U 797	87	6.3	5
860626	23	1205	U 799	88	6.6	5
860626	23	1205	U 800	88	6.0	5
860626	23	1205	U 801	98	9.0	5
860626	241	1345	U 823	100	9.8	5
860626	241	1345	U 824	96	9.8	5
860626	241	1345	U 825	116	16.0	5
860626	241	1345	U 826	116	16.4	5
860626	241	1345	U 827	115	16.4	5
860626	241	1345	U 828	109	12.6	5
860626	241	1345	U 829	105	11.2	5
860626	241	1345	U 830	107	13.6	5
860626	241	1345	U 831	101	10.3	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860626	241	1345	U 832	111	13.9	5
860626	34	1625	U 854	110	15.4	5
860626	34	1625	U 855	109	10.4	5
860626	34	1625	U 856	115	13.7	5
860626	34	1625	U 857	109	11.8	5
860626	34	1625	U 859	82	6.6	5
860626	34	1625	U 860	96	10.8	5
860626	34	1625	U 861	112	16.8	5
860626	34	1625	U 862	95	9.8	5
860626	34	1625	U 863	108	15.2	5
860626	34	1625	U 864	108	15.3	5
860626	34	1645	U 865	102	8.7	5
860626	34	1645	U 866	104	10.4	5
860626	34	1645	U 867	106	11.3	5
860626	34	1645	U 868	120	19.1	5
860626	8	1815	U 874	110	12.6	5
860626	8	1815	U 875	106	15.5	5
860626	8	1815	U 876	101	11.3	5
860626	8	1815	U 877	107	13.5	5
860626	8	1815	U 878	108	12.8	5
860626	8	1815	U 879	105	9.3	5
860626	8	1815	U 880	101	12.6	5
860626	8	1815	U 881	94	9.0	5
860626	8	1815	U 882	105	12.5	5
860626	8	1815	U 883	97	9.5	5
860627	6	710	U 884	59	2.5	5
860627	6	710	U 885	54	1.9	5
860627	6	710	U 886	70	3.7	5
860627	6	710	U 887	69	4.1	5
860627	6	710	U 888	61	2.9	5
860627	6	710	U 889	55	2.0	5
860627	6	710	U 890	54	2.0	5
860627	6	710	U 891	48	1.2	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860627	6	710	U 892	51	1.4	5
860627	6	710	U 893	52	1.5	5
860627	18	745	U 894	57	2.3	5
860627	18	745	U 895	67	3.3	5
860627	18	745	U 896	57	1.8	5
860627	18	745	U 897	52	1.6	5
860627	18	745	U 898	53	1.8	5
860627	18	745	U 899	49	1.3	5
860627	18	745	U 900	55	2.0	5
860627	18	745	U 901	60	2.8	5
860627	18	745	U 902	53	1.7	5
860627	18	745	U 903	51	1.6	5
860708	7	1225	U 904	53	1.8	5
860708	7	1225	U 905	56	2.2	5
860708	7	1225	U 906	55	2.1	5
860708	7	1225	U 907	55	2.1	5
860708	7	1225	U 908	50	1.5	5
860708	7	1225	U 909	63	3.2	5
860708	7	1225	U 910	100	10.3	5
860708	7	1225	U 913	110	13.9	5
860708	7	1225	U 914	98	10.1	5
860708	4	1245	U 915	61	2.7	5
860708	4	1245	U 916	68	3.9	5
860708	4	1245	U 917	66	3.3	5
860708	4	1245	U 918	65	3.3	5
860708	4	1245	U 919	67	3.9	5
860708	4	1245	U 920	105	13.4	5
860708	4	1245	U 921	97	10.0	5
860708	4	1245	U 922	112	14.8	5
860708	4	1245	U 923	106	14.0	5
860708	4	1245	U 924	106	13.5	5
860708	1	1315	U 925	52	1.7	5
860708	1	1315	U 926	51	1.5	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860708	1	1315	U 927	52	1.7	5
860708	1	1315	U 928	48	1.2	5
860708	1	1315	U 929	53	1.7	5
860708	1	1315	U 932	104	12.0	5
860708	1	1315	U 933	115	17.0	5
860708	292	1340	U 934	54	1.8	5
860708	292	1340	U 935	63	2.9	5
860708	292	1340	U 936	71	3.4	5
860708	292	1340	U 937	69	3.5	5
860708	292	1340	U 938	61	2.6	5
860708	292	1340	U 939	77	4.5	5
860708	292	1340	U 940	78	4.8	5
860708	292	1340	U 941	98	9.2	5
860708	292	1340	U 942	93	8.1	5
860708	292	1340	U 943	94	8.3	5
860708	292	1340	U 944	94	7.8	5
860708	21	1430	U 946	70	3.5	5
860708	21	1430	U 947	61	2.1	5
860708	21	1430	U 948	59	2.4	5
860708	21	1430	U 949	58	2.1	5
860708	21	1430	U 950	66	2.9	5
860708	20	1450	U 951	57	2.1	5
860708	20	1450	U 952	61	2.3	5
860708	20	1450	U 953	62	2.6	5
860708	20	1450	U 954	66	3.1	5
860708	20	1450	U 955	92	7.3	5
860708	20	1450	U 956	113	12.8	5
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860708	20	1450	U 958	111	13.4	5
860708	20	1450	U 959	96	8.9	5
860708	20	1450	U 960	120	16.0	5
860708	17	1525	U 961	43	.9	5
860708	17	1525	U 962	51	1.6	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860708	17	1525	U 963	62	2.7	5
860708	17	1525	U 964	61	2.4	5
860708	17	1525	U 965	66	3.4	5
860708	17	1525	U 966	58	2.0	5
860708	15	1530	U 967	50	1.1	5
860708	15	1530	U 968	54	1.7	5
860708	15	1530	U 969	60	2.2	5
860708	15	1530	U 970	55	1.6	5
860708	15	1530	U 971	51	1.6	5
860708	14	1535	U 972	47	1.0	5
860708	14	1535	U 973	66	3.7	5
860708	14	1535	U 974	54	1.7	5
860708	14	1535	U 975	53	1.3	5
860708	14	1535	U 976	45	.9	5
860708	14	1535	U 977	115	16.3	5
860709	47	725	U 978	42	.6	5
860709	47	725	U 979	57	1.9	5
860709	47	725	U 980	60	2.2	5
860709	47	725	U 981	53	1.7	5
860709	47	725	U 982	58	2.0	5
860709	47	725	U 983	51	1.3	5
860709	23	800	U 984	56	2.0	5
860709	23	800	U 985	86	6.0	5
860709	23	800	U 989	92	7.8	5
860709	23	800	U 990	89	6.7	5
860709	23	800	U 991	79	4.8	5
860709	23	800	U 992	86	5.9	5
860709	23	800	U 994	91	6.8	5
860709	231	855	U 995	92	6.5	5
860709	231	855	U 996	88	5.7	5
860709	231	855	U 998	93	7.8	5
860709	231	855	U1000	89	6.4	5
860709	241	920	U1004	114	14.1	5
860709	241	920	U1005	108	9.3	5
860709	24	950	U1007	59	2.2	5
860709	24	950	U1008	51	1.6	5
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860709	24	950	U1013	93	7.7	5
860709	24	950	U1014	112	13.4	5
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860709	35	1335	U1024	76	3.7	5
860709	35	1335	U1025	70	3.6	5
860709	35	1335	U1026	91	7.2	5
860709	35	1335	U1027	102	10.9	5
860709	35	1335	U1028	104	11.2	5
860709	35	1335	U1030	120	17.8	5
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860709	34	1350	U1032	57	2.3	5
860709	34	1350	U1033	68	3.5	5
860709	34	1350	U1034	56	2.0	5
860709	34	1350	U1035	68	3.8	5
860709	34	1350	U1036	111	15.0	5
860709	34	1350	U1037	108	11.3	5
860709	34	1350	U1039	106	12.6	5
860709	34	1350	U1040	102	12.4	5
860709	27	1420	U1041	68	3.2	5
860709	27	1420	U1042	61	2.5	5
860709	27	1420	U1043	61	2.2	5
860709	27	1420	U1044	65	3.0	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
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860709	18	1725	U1047	57	2.4	5
860709	18	1725	U1048	49	1.4	5
860709	18	1725	U1049	60	2.6	5
860709	18	1725	U1050	66	3.3	5
860723	20	0925	U1059	69	3.3	5
860723	20	0925	U1060	68	3.3	5
860723	20	0925	U1061	75	4.7	5
860723	20	0925	U1062	78	4.6	5
860723	20	0925	U1063	66	3.0	5
860723	20	0925	U1064	72	4.0	5
860723	20	0925	U1065	78	5.4	5
860723	20	0925	U1066	76	4.6	5
860723	20	0925	U1067	71	4.0	5
860723	20	0925	U1068	63	2.7	5
860723	20	0925	U1069	67	2.8	5
860723	20	0925	U1070	63	2.2	5
860723	24	1320	U1079	79	5.2	5
860723	24	1320	U1080	100	10.7	5
860723	24	1320	U1082	93	7.1	5
860723	24	1320	U1083	94	7.9	5
860723	24	1320	U1086	100	10.4	5
860723	24	1320	U1089	109	13.8	5
860723	24	1320	U1090	88	6.4	5
860723	24	1320	U1092	92	9.2	5
860723	24	1320	U1093	108	10.8	5
860723	24	1320	U1094	125	20.1	5
860723	24	1320	U1095	102	10.0	5
860723	24	1320	U1097	84	5.5	5
860723	34	1505	U1113	73	3.8	5
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860723	34	1505	U1115	74	4.3	5
860723	34	1505	U1116	80	5.5	5
860723	34	1505	U1117	86	7.2	5
860723	34	1505	U1118	82	5.6	5
860723	34	1505	U1119	80	5.3	5
860723	34	1505	U1120	93	7.5	5
860723	34	1505	U1121	104	9.2	5
860723	34	1505	U1122	82	5.4	5
860724	8	0830	U1125	96	9.1	5
860724	8	0830	U1126	103	12.2	5
860724	8	0830	U1127	85	7.4	5
860724	8	0830	U1128	51	1.6	5
860724	7	1025	U1131	54	1.9	5
860724	7	1025	U1132	66	3.4	5
860724	7	1025	U1133	76	4.8	5
860724	7	1025	U1134	60	2.5	5
860724	7	1025	U1135	60	2.8	5
860724	7	1025	U1136	51	1.6	5
860724	7	1025	U1137	64	2.7	5
860724	7	1025	U1138	60	2.4	5
860724	7	1025	U1139	54	1.6	5
860806	20	1605	U1140	106	12.6	5
860806	20	1605	U1141	88	7.8	5
860806	20	1605	U1142	85	7.3	5
860806	20	1605	U1143	85	7.2	5
860806	20	1605	U1144	90	9.7	5
860806	20	1605	U1145	90	8.4	5
860806	20	1605	U1147	85	7.5	5
860806	20	1605	U1148	78	5.8	5
860806	20	1605	U1149	77	5.1	5
860806	20	1605	U1150	75	4.7	5
860806	20	1605	U1151	67	3.5	5
860806	7	1630	U1152	88	8.8	5
860806	7	1630	U1153	88	9.3	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860806	7	1630	U1154	90	8.8	5
860806	7	1630	U1155	89	9.5	5
860806	7	1630	U1156	76	5.9	5
860806	7	1630	U1157	90	9.7	5
860806	7	1630	U1158	91	10.6	5
860807	10	0945	U1163	76	6.1	5
860807	10	0945	U1164	75	5.7	5
860807	10	0945	U1165	75	5.8	5
860807	10	0945	U1166	87	9.4	5
860807	10	0945	U1167	94	10.9	5
860807	10	0945	U1168	71	4.7	5
860807	10	0945	U1169	60	3.1	5
860807	10	0945	U1170	75	6.1	5
860807	6	1000	U1208	69	4.0	5
860807	6	1000	U1209	68	3.8	5
860807	6	1000	U1210	73	4.5	5
860807	6	1000	U1211	68	3.2	5
860807	6	1000	U1212	77	5.5	5
860807	6	1000	U1213	74	4.8	5
860807	6	1000	U1214	76	5.6	5
860807	6	1000	U1215	74	4.8	5
860807	6	1000	U1216	64	3.7	5
860807	6	1000	U1217	65	3.4	5
860819	7	1230	U1181	97	11.6	5
860819	7	1230	U1182	96	10.6	5
860819	7	1230	U1183	81	6.5	5
860819	7	1230	U1184	93	9.2	5
860819	7	1230	U1185	121	23.8	5
860819	11	1500	U1203	93	9.5	5
860819	11	1500	U1204	87	10.1	5
860819	11	1500	U1205	79	6.6	5
860819	11	1500	U1206	75	5.3	5
860819	11	1500	U1207	87	7.9	5

DATE	STN	TIME PST	FISH NUMB	LEN MM	WT G	SP
860819	1	1540	U1186	67	3.4	5
860819	1	1540	U1187	77	5.6	5
860819	1	1540	U1188	67	4.1	5
860819	1	1540	U1189	62	2.9	5
860819	1	1540	U1190	67	3.9	5
860820	231	0800	U1171	90	8.4	5
860820	231	0800	U1172	88	8.2	5
860820	231	0800	U1173	84	6.9	5
860820	231	0800	U1174	77	5.4	5
860820	231	0800	U1175	99	11.3	5
860820	27	0930	U1176	100	10.7	5
860820	27	0930	U1177	100	11.2	5
860820	27	0930	U1178	86	7.4	5
860820	27	0930	U1179	88	7.6	5
860820	27	0930	U1180	110	12.8	5
860820	4	1350	U1191	91	9.0	5
860820	4	1350	U1192	86	7.9	5
860820	4	1350	U1193	101	12.3	5
860820	4	1350	U1194	100	11.5	5
860820	4	1350	U1195	134	33.7	5
860820	6	1440	U1196	114	15.0	5
860820	6	1440	U1197	88	9.6	5
860820	6	1440	U1198	107	14.5	5
860820	6	1440	U1199	99	13.3	5
860820	6	1440	U1200	140	40.4	5
860820	6	1440	U1201	135	29.1	5
860820	6	1440	U1202	145	43.3	5
860806	7	1630	U1159	144	36.4	7

FIGURES

Fig. 1. Chart of the Campbell River estuary showing stations where beach seining was conducted in 1986.

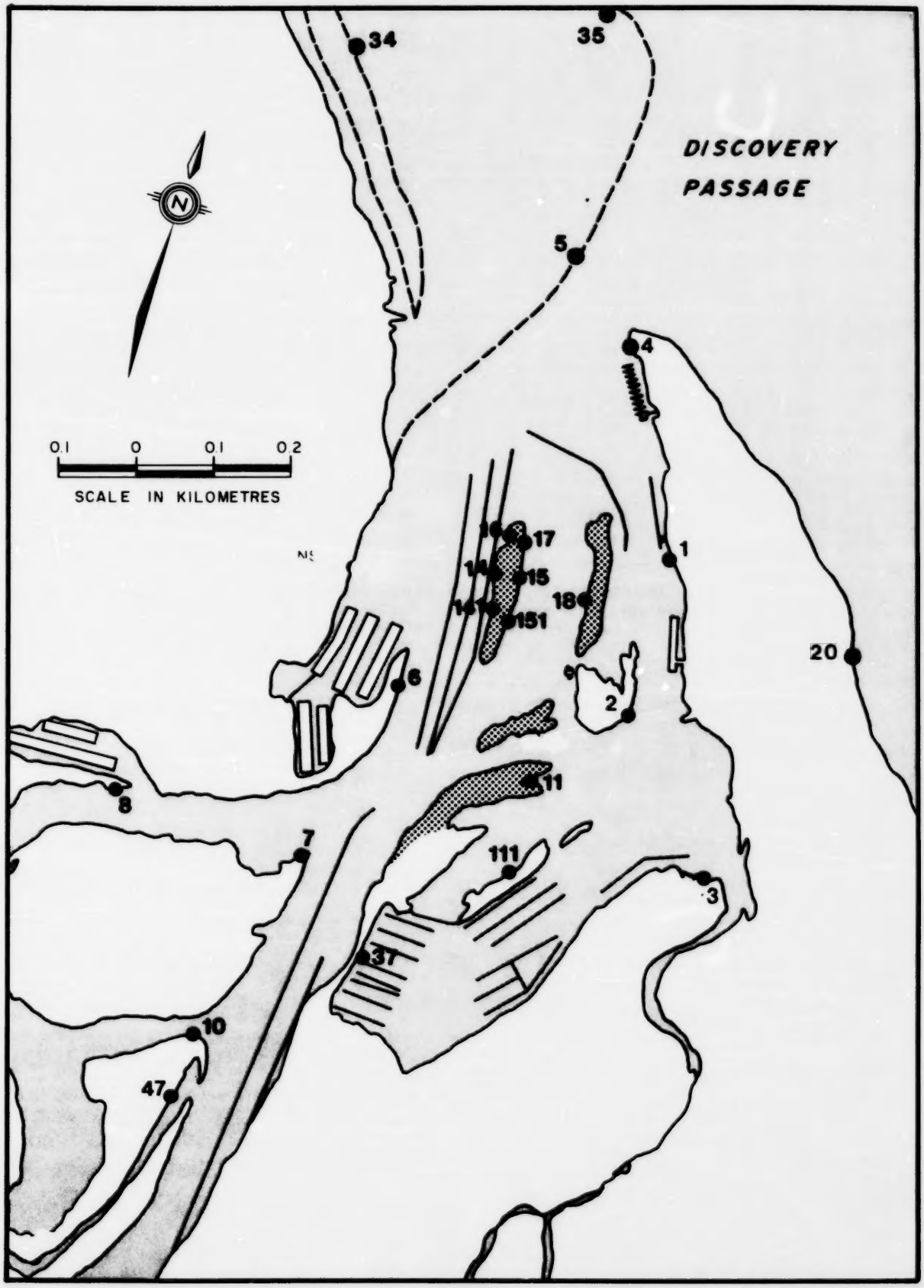
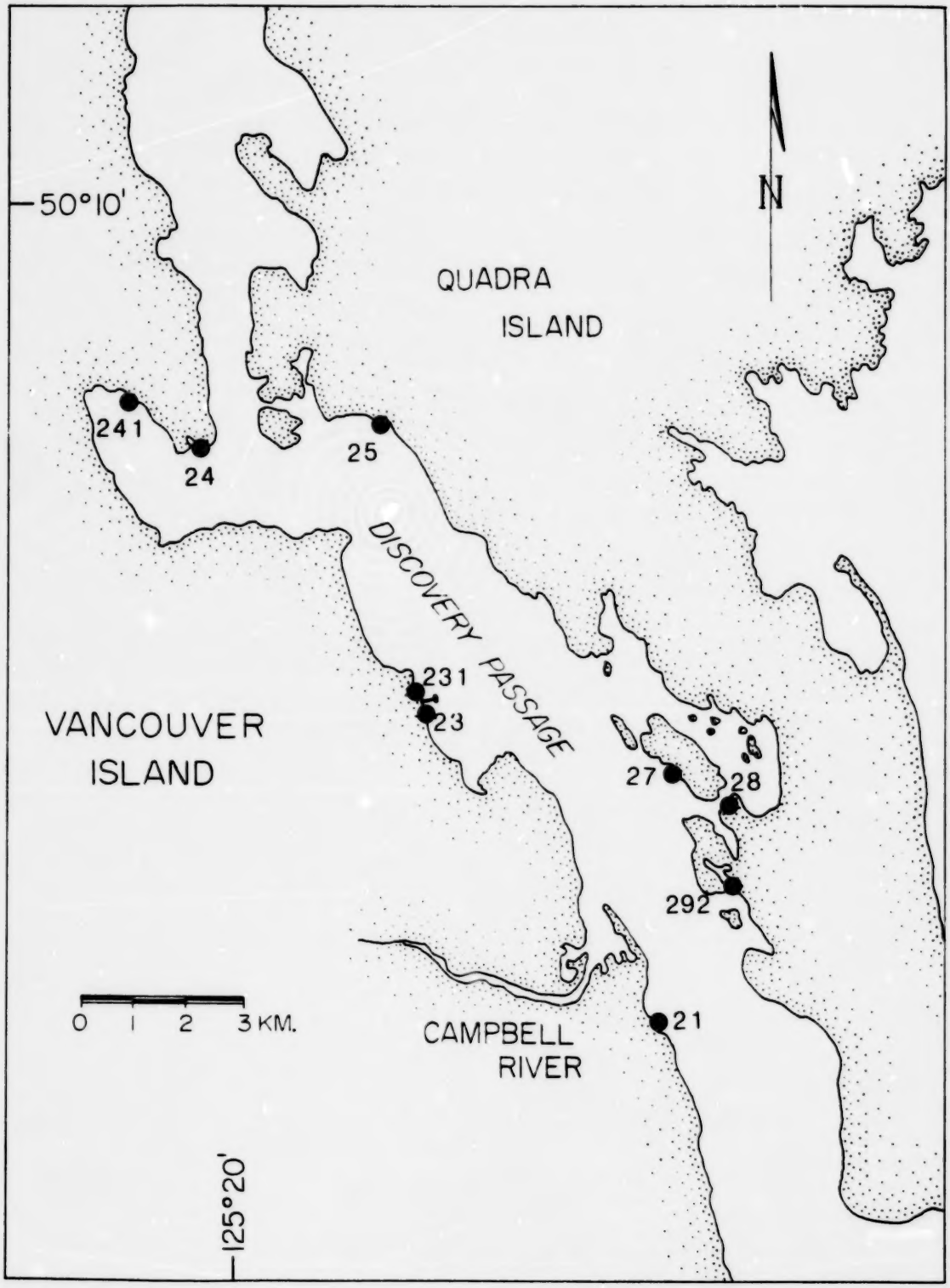

DISCOVERY
PASSAGE
0.1 0 0.1 0.2
SCALE IN KILOMETRES
34
35
5
4
17
1
15
18
20
6
2
11
8
7
111
3
31
10
47

Fig. 2. Chart of Discovery Passage showing stations where beach seining was conducted in 1986.


50°10'
QUADRA
ISLAND
N
241
24
25
DISCOVERY PASSAGE
231
23
VANCOUVER
ISLAND
27
28
292
0 1 2 3 KM.
CAMPBELL
RIVER
21
125°20'